

ATTORNEY'S DOCKET NO: M0925.70110US00 TJO

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

Jackie Y. Ying et al.

Serial No:

10/044,801

Confirmation. No.:

4734

Filed:

January 11, 2002

For:

NANOCRYSTALLINE APATITES AND COMPOSITES.

PROSTHESIS INCORPORATING THEM, AND METHOD FOR

THEIR PRODUCTION

Examiner:

Carol M. Koslow

Art Unit:

1755

CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)

The undersigned hereby certifies that this document is being placed in the United States mail with first-class postage attached, addressed to Commissioner for Patents, Washington, D.C. 20231, on the day of October, 2003.

Signature WUC

Commissioner for Patents Washington, D.C. 20231

DECLARATION UNDER 37. C.F.R. §1.132

Sir:

- 1. I, the undersigned, Edward S. Ahn, am an inventor of the above-identified patent application.
 - 2. My educational background is as follows:

I was graduated with a Ph.D. in chemical engineering from the Massachusetts Institute of Technology in 2001. I received a B.S. degree in chemical engineering from Stanford University in 1994.

3. I have read and understood the above-identified patent application, the Final Office Action dated June 3, 2003, all of claims 581-599, 601-612, 614-621, 623-639 and 674-695 as pending in the above-identified application, and each of claims 581, 620, 696, and 697 as amended or added in the amendment filed on even date herewith.

- 4. Experimental data, which I obtained in collaboration with my co-inventors of the above-identified application in connection with development of the invention described in the application, demonstrate that apatite crystals produced in accordance with the working examples of the above-identified application have a general structure that is from somewhat to significantly elongated, and can be needle-like, with an aspect ratio ranging from about 2.3:1 to about 5.9:1.
- 5. The general structure (aspect ratio) of the apatite crystals described in the aboveidentified application is related to the surface area of the apatite, the surface area increasing as the aspect ratio decreases.
- All statements made herein of my own knowledge are true and all statements made on information and belief are believed to be true; and further, these statements were made with knowledge that willful false statements and the like are punishable by fine or imprisonment, or both, under §1001 of Title 18 of the United States Code, and that any such willful false statements may jeopardize the validity of this application or any patent issued

thereon.

Edward S. Alin